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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,084	04/07/2006	Billaud Philippe Jean	4590-511	8658

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ALEXANDRIA, VA 22314

EXAMINER
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GREGORY, BERNARR E

ART UNIT	PAPER NUMBER
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3662

MAIL DATE	DELIVERY MODE
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10/17/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/575,084		JEAN ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Bernarr E. Gregory		3662	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 15 July 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 9-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

1. The new declaration received on 15 July 2008 is hereby acknowledged and has been entered into the application.

2. Claims 15, 16, and 11 are hereby objected to under 37 CFR 1.75(c) in that each of these claims fails to further limit the claims from which they depend.

Claim 15 is directed to "A defruiting system" (line 1 of claim 15) and mentions the method of independent claim 9 as being implemented in a recited "correlator" (line 2 of claim 15). However, 37 CFR 1.75(c) states that a claim depending from another claim must be "further limiting" of the claim from which it depends. Claim 15 depends from independent method claim 9, but claim 15 fails to act in "further limiting" the claimed subject matter of independent method claim 9 in that it sets forth a different embodiment and a different statutory class (35 USC 101) than that which is in claim 9. Since claim 15 is drafted as an apparatus claim that is directed to a different embodiment than that of method claim 9, claim 15 can not logically act in "further limiting" claim 9 as required by 37 CFR 1.75(c). Thus, claim 15 is hereby objected to under 37 CFR 1.75(c) as failing to further limit the claim from which it depends.

Similarly, claim 16 is directed to "A secondary radar" (line 1 of claim 16) and mentions the system of claim 15 as being part of the claimed "secondary radar" (line 1 of claim 16). The claimed subject matter of claim 16 can not logically act in "further limiting" the subject matter of claim 15 as required by 37 CFR 1.75(c) in that claim 16 is directed to a different invention than that of claim

15. Claim 16 would have to have language such as, "The defruiting system of claim 15 further comprising ..." in order to further limit the claimed subject matter of claim 15. Thus, claim 16 is hereby objected to under 37 CFR 1.75(c) as failing to further limit the claim from which it depends.

Claim 11 is directed to "A method of defruiting" (line 1 of claim 11) and refers to independent method claim 9 (line 5 of claim 11), but claim 11 as drafted is not "further limiting" of the method of claim 9 as required by 37 CFR 1.75(c) in that it sets forth a different method. Please note that claim 11 refers to "A method" (line 1 of claim 11), claim 11 does not refer to "the method of claim 9." Thus, logically, claim 11 in that it sets forth to claim "A method" (line 1 of claim 11) can not be "further limiting" of "A method" (line 1 of claim 9), otherwise claim 11 would refer to "The method of claim 9," but it does not. Thus, claim 11 is hereby objected to under 37 CFR 1.75(c) as failing to further limit the claim from which it depends.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 15, 16, and 11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 is indefinite and unclear in that it is drafted as a dependent claim, but it is unclear how it could further limit the claim from which it depends. Claim

15 is directed to "A defruiting system" (line 1 of claim 15) and mentions the method of independent claim 9 as being implemented in a recited "correlator" (line 2 of claim 15). However, 37 CFR 1.75(c) states that a claim depending from another claim must be "further limiting" of the claim from which it depends. Claim 15 depends from independent method claim 9, but claim 15 fails to act in "further limiting" the claimed subject matter of independent method claim 9 in that it sets forth a different embodiment and a different statutory class (35 USC 101) than that which is in claim 9. Since claim 15 is drafted as an apparatus claim that is directed to a different embodiment than that of method claim 9, claim 15 can not logically act in "further limiting" claim 9 as required by 37 CFR 1.75(c).

Claim 16 is indefinite and unclear in that it is drafted as a dependent claim, but it is unclear how it could further limit the claim from which it depends. Similarly to claim 15, claim 16 is directed to "A secondary radar" (line 1 of claim 16) and mentions the system of claim 15 as being part of the claimed "secondary radar" (line 1 of claim 16). The claimed subject matter of claim 16 can not logically act in "further limiting" the subject matter of claim 15 as required by 37 CFR 1.75(c) in that claim 16 is directed to a different invention than that of claim 15. Claim 16 would have to have language such as, "The defruiting system of claim 15 further comprising ..." in order to further limit the claimed subject matter of claim 15.

Claim 11 is indefinite and unclear in that it is drafted as a dependent claim, but it is unclear how it could further limit the claim from which it depends. Claim

11 is directed to "A method of defruiting" (line 1 of claim 11) and refers to independent method claim 9 (line 5 of claim 11), but claim 11 as drafted is not "further limiting" of the method of claim 9 as required by 37 CFR 1.75(c) in that it sets forth a different method. Please note that claim 11 refers to "A method" (line 1 of claim 11), claim 11 does not refer to "the method of claim 9." Thus, logically, claim 11 in that it sets forth to claim "A method" (line 1 of claim 11) can not be "further limiting" of "A method" (line 1 of claim 9), otherwise claim 11 would refer to "The method of claim 9," but it does not.

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 9-14 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

The analysis in this rejection is made using the official guidelines set forth in MPEP 2106. Please note that the official guidelines in the cited section of the MPEP are not the basis of this rejection. Rather, the guidelines merely are a tool in the application of 35 USC 101, which is the legal basis for this rejection.

In the first paragraph of section IV.B. of MPEP 2106, it is stated that to "properly determine whether a claimed invention complies with the statutory requirements of 35 U.S.C. 101, USPTO personnel must first identify whether the claim falls within at least one of the four enumerated categories of patentable subject matter recited in section

101 (i.e., process, machine, manufacture, or composition of matter)." Looking to independent claim 9 as newly-amended, claim 9 is directed to a "method" which is practiced by the execution of mathematical formulae as recited in the body of that claim. The word "method" as used in claim 9 is a synonym to the word "process" as used in 35 USC 101. So, claim 9 is drafted as being directed to a "process."

In the first paragraph of section IV.C. of MPEP 2106, it is stated that "Determining whether the claim falls within one of the four enumerated categories of patentable subject matter recited in 35 U.S.C. 101 ... does not end the analysis because claims directed to nothing more than abstract ideas (such as mathematical algorithms), natural phenomena, and laws of nature are not eligible for patent protection." In the first paragraph of section IV.C.1. of MPEP 2106, it is stated that "USPTO personnel must ascertain the scope of the claim to determine whether it covers either a 35 U.S.C. 101 judicial exception or a practical application of a 35 U.S.C. 101 judicial exception ... because the practical application of a judicial exception may qualify for patent protection." Looking again to independent method claim 9, the claimed process is plainly mathematical in that it is directed to the execution of mathematical formulae that are set forth in the body of claim 9. In the body of claim 9, line 6 of claim 9 states that the action performed is "testing synchronism of transponder responses." It is noted that such "testing" in claim 9 is no more than obtaining a result of a mathematical process. A mathematical process is given in the first paragraph of section IV.C. of MPEP as an example of the judicial exception of "abstract ideas," so plainly the

mathematical process of claim 9 would fall within the judicial exception of "abstract ideas."

Next, according to section IV.C.1. of MPEP 2106, one must inquire whether the judicial exception "'transforms' an article or physical object to a different state or thing" or "otherwise produces a useful, concrete and tangible result." Looking once more to independent method claim 9, the action of "testing synchronism" (line 6 of claim 9) by the execution of mathematical formulae plainly in no way would act to transform "an article or physical object to a different state or thing" in that there is no operation upon matter of any sort in the claimed method." Taking the second part of this inquiry one must determine if the method of claim 9 produces "a useful, concrete and tangible result." With reference to the method of claim 9 being a "useful" method, there is no use of the result in the method of claim 9 that makes use of the result of the mathematical algorithm; however, the claim mentions for context the use of the mathematical algorithm with a "secondary radar" (line 2 of claim 9) and with a "transponder" (line 1 of claim 9). For the purposes of this rejection, it will be presumed that the claim 9 method is useful. As to the question of whether the method of claim 9 is "concrete," it is plainly so that the claim 9 method is "concrete" at least in that the results of the mathematical algorithm are deterministic. As for the question of the claim 9 method being a "tangible" one, the test is that the process must (1) be tied to another statutory class (such as a particular apparatus), or (2) transform underlying subject matter (such as articles or materials) to a different state or thing. Diamond v. Diehr, 450 U.S. 175, 184 (1981); Parker v. Flook, 437 U.S. 584, 588 n. 9 (1978); Gottschalk v.



Benson, 409 U.S. 63, 70 (1972); Cochrane v. Deener, 94 U.S. 780, 787-88 (1876). As discussed previously above, the claim 9 method does not transform matter in that it does not act on matter at all. So, the question is whether the claim 9 mathematical method is tied to another statutory class. Although the preamble of independent claim 9 does point to the context or intended use of the claimed method with secondary radar and transponders, the body of the claim is totally silent as to the claimed method as being tied in any manner to a particular apparatus. Thus, the method of claim 9 falls on this point in that it is directed to a mathematical method (i.e., the judicial exception of an abstract idea), but the method of claim 9 is not found to be a practical application of a judicial exception under 35 USC 101 due to the method not being tied to a different statutory class. Thus, the judicial exception of the method of claim 9 is non-statutory under 35 USC 101, and is hereby rejected on that basis.

Dependent claim 10 is likewise non-statutory under 35 USC 101 in that it merely further defines the mathematical algorithm of independent claim 9.

Dependent claims 11-14 are likewise non-statutory under 35 USC 101 in that adds nothing to the method of claim 9 that would render the method tangible under the guidelines, and so that would not render the claims statutory under 35 USC 101. It is pointed out that claim 11 does not further limit claim 9 due to the way it is drafted.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Bernarr E. Gregory whose telephone number is (571) 272-6972. The examiner can normally be reached on weekdays from 7:30 AM to 4:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas H. Tarcza, can be reached on (571) 272-6979. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Art Unit: 3662

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Bernarr E. Gregory/  
Primary Examiner, Art Unit 3662